

CARE ISSUES AND MEDICATION REVIEW

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ABSTRACT

OBJECTIVE To undertake a pharmacist medication review for patients receiving chronic medication in a community pharmacy setting.

METHOD Patients collecting their free medication from a specific community pharmacy through the 'Pharmacy of Your Choice' (POYC) scheme had their medication records reviewed by a pharmacist to identify any drug-related problems. A questionnaire regarding the use of their medication, patient check-ups and medication compliance to their prescribed regimen was performed for each individual patient.

KEY FINDINGS Eighty patients were studied. The average number of medications per patient was 6 medications. Forty-two patients (52.5%) claimed to pick up their repeat prescription when they visit their doctor. Thirty-one patients (39%) stated that they experienced medication side effects. From the pharmacist medication review it transpired that 19 patients (24%) were at a risk of clinically significant drug interactions.

CONCLUSION Community pharmacists can help patients use their medication more effectively. They can support prescribers in the selection of the most appropriate therapy for the individual patient. In chronic disease management, pharmacist-led medication reviews can help optimize pharmacological therapy reducing medication-related problems. This can help achieve treatment goals and improve patients' quality of life.

KEY WORDS Medication review, medication regimen, community pharmacist, patient monitoring.

INTRODUCTION

The 'Pharmacy of Your Choice' (POYC) scheme was introduced in Malta in 2007. This is a scheme whereby people suffering from chronic diseases obtain their medicines for free through the public national health system from a private pharmacy of their choice.

Regimens, pertaining to patients who intend to make use of their medication chronically, might need certain periodic adjustments. Common amendments which can be made include the removal of unnecessary medication or the addition of another drug. In chronic treatment patients may need medication review especially when receiving treatment from different health care professionals. Some patients might not be compliant to the medication prescribed to them or they might have difficulties when it comes to managing their own medicines.

In the local scenario, these issues could be addressed during a medication review undertaken by the community pharmacist prior to dispensing the chronic medications through the POYC scheme. When a medication review is conducted, maximum benefit of particular medication is sought and negative effects caused by one or more medication's side effects or interactions eliminated.¹ Application of therapeutic guidelines to decide what action is needed and the implementation and monitoring of this action is of utmost importance.^{2,3}

The aims of this study consisted of performing a detailed examination of the patient's medication regimen through a medication review exercise. Also, identification of any significant problem present in the medication regimen and amendment of these problems through discussions with the patient's GP or specialist and the patient were undertaken.



“REGIMENS, PERTAINING TO PATIENTS WHO INTEND TO MAKE USE OF THEIR MEDICATION CHRONICALLY, MIGHT NEED CERTAIN PERIODIC ADJUSTMENTS”

METHOD

Patients visiting the pharmacy to collect their medication through the POYC scheme had their medication regimen observed and recorded. This was done by looking through the patient's medication record held at the community pharmacy where the study was carried out. Approval was granted from the managers of the community pharmacy and from the University of Malta Research and Ethics committee.

The patients which were selected had to be either; taking 4 or more different types of medication, older than 60 years of age, with special psychiatric needs, taking high risk medication (eg; drugs with a narrow therapeutic index) or patients experiencing particular undesirable effects through routine monitoring.

A patient profile was set up which included the name, gender and history of medical conditions that the patient was suffering from. This profile also included a list of all the medications that the patient was taking, prescription and non- prescription medicines.

When patients visited the pharmacy to collect their medicines each patient participating in the study was asked to answer a questionnaire. The questionnaire assessed through patients' self- reporting, adherence to the prescribed medication regimen. Questions consisted of whether patients usually visited the same doctor or not and information about and frequency of medical check- ups. Patients were asked whether they received a full medical check- up when they collected their repeat prescription for their 'free medicines' or whether they just collected their repeat prescription with no further discussion. Also, patients were asked questions about taking medication regularly at the prescribed time, missing doses and reasons for poor compliance. Patients were asked to report any experienced side effects.

Following collection of this data, a check- list was set up by the pharmacist conducting the review. By using this tool, the pharmacist evaluated appropriateness of drug therapy and dosage regimen given to the patient, if there were any untreated or unnecessary indications, if duration of therapy was appropriate, if there were any interactions or side effects which could be avoided, if the regimen could be simplified and if the regimen was cost effective. All the information attained was recorded in the check- list.

RESULTS

Eighty patients participated in the study. Forty (50%) were male and 40 (50%) were female. All patients were Maltese. The average age for this population of patients was 69 years (range: 37-91 years).

The most common types of conditions which these patients were suffering from were hypertension, hyperglycaemia and hypercholesterolaemia with 51 (64%), 22 (28%) and 30 (38%) patients suffering from them respectively. The average number of medications per patient was 6 different types of medication (range: 1- 34 types of medication). Seventy patients (88%) claimed to usually visit the same doctor. The average frequency of medical check- ups was every 6 months (range: every week – every 3 years).

Thirty-seven patients (46%) claimed to receive a medical check-up and discuss their medication when they collect their repeat prescription from their doctor whilst the remaining 43 patients (54%) claimed to collect the repeat prescription with no thorough discussion.

When assessing patient compliance to their medication, 55 patients (69%), claimed to never miss a dose of their medication. The remaining 25 patients (31%) claimed to miss their dose of medication either rarely or more often. The majority of patients (77 patients; 96%) said that they usually took their medication at their prescribed time. Thirty-one patients (39%) reported that they experienced side effects which they knew were caused by their medication.

From the check-list completed by the pharmacist, it was observed that 69 patients (86%) were receiving appropriate treatment for their condition. No patients had any untreated indications and no patients were being treated for unnecessary indications. Seventy- five patients (94%) had a constant need for the drugs being provided to them whilst the remaining 5 patients (6%) were taking medication which should have been stopped previously. Seventy out of the eighty patients (88%) were being administered an appropriate dosage regimen. A One Way ANOVA test indicated that patients being administered a relatively lower number of medications were those most likely to be receiving the most appropriate treatment ($p=0$; Figure 1). Nineteen patients (24%) were at risk of significant drug interactions which could be minimized. For 72 patients (90%) there was duplication of treatment.

DISCUSSION

Results of this study show that most patients were receiving a considerable amount of poly-pharmacy. This could indicate the presence of various co-morbidities but could also indicate the fact that duplication of treatment prevails in this population. This could be due to the fact that although most patients usually visited the same doctor, a considerable amount of them visited different specialists and co-ordination of treatment was lacking. This reflects the need for medication review by the community pharmacist from where the patient is collecting the medicines through the POYC. In this scenario the pharmacist has a complete view of all medications being taken by the patient irrespective of disease, condition or specialist visited.

Also such a process will reduce the risk that patients experience side effects caused by their medication. The community pharmacist can indeed help their patients use their medication more effectively and can support prescribers to select the most appropriate clinical or most cost effective treatment for the individual patient. Pharmacist-based medication review reduces the potential for drug-related problems.⁴ Continuity of care is of utmost importance when it comes to the delivery of health care of high quality.⁵ The community pharmacist is in a position to follow up on patients' drug therapy in the primary care setting particularly in a scenario where patients may not be receiving a detailed medical check-up when getting the repeat prescriptions.

CONCLUSION

In chronic disease management the presence of multiple prescribers and the lack of frequent reviews could present potential problems to the individual patient. Health-care professionals should collaborate to provide optimal therapy to all patients. Good education should be given to all patients regarding their treatment. Pharmacist-led medication reviews for patients on the POYC scheme should be proposed as this will lead to better patient monitoring, care and use of medicines.

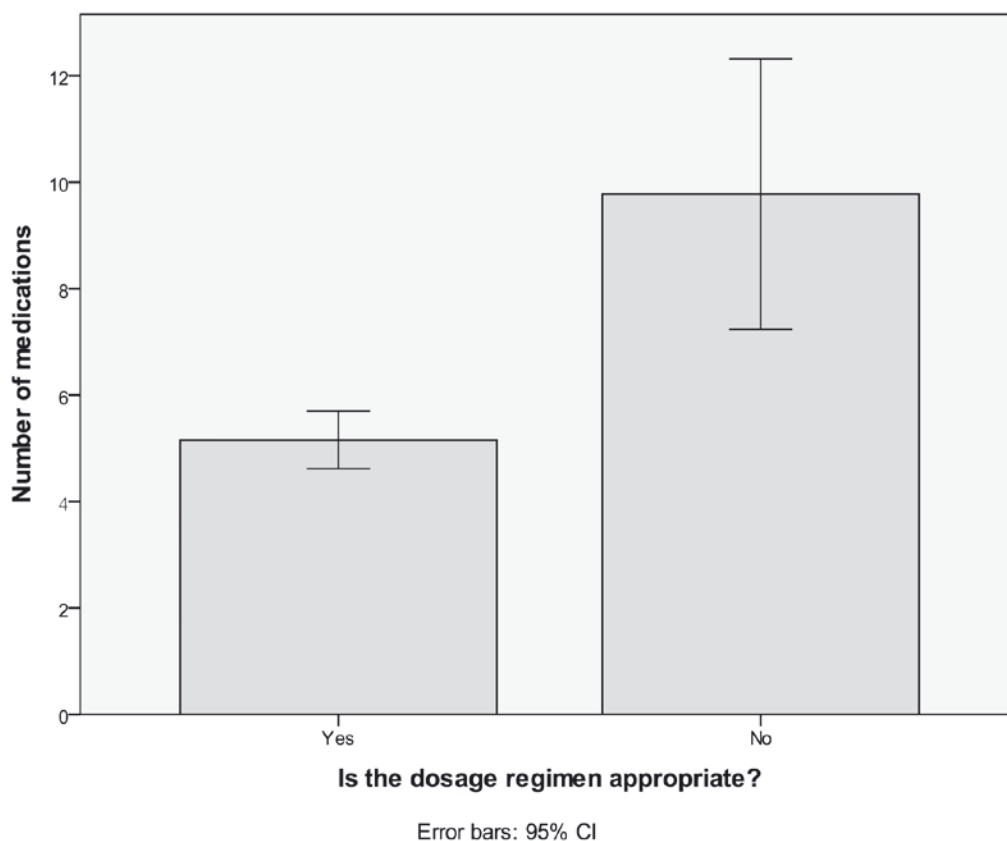
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“RESULTS OF THIS STUDY SHOW
THAT MOST PATIENTS WERE
RECEIVING A CONSIDERABLE
AMOUNT OF POLY-PHARMACY”

Figure 1: Comparison of the number of medications with whether or not patients are receiving the most appropriate dosage regimen (n=80)



“IN CHRONIC DISEASE MANAGEMENT THE PRESENCE OF MULTIPLE PRESCRIBERS AND THE LACK OF FREQUENT REVIEWS COULD PRESENT POTENTIAL PROBLEMS TO THE INDIVIDUAL PATIENT”